

The opinion in support of the decision being entered today was ***not*** written for publication and is ***not*** binding precedent of the Board.

Paper No. 27

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

***Ex parte*** OLOF T. BACKSTROM and RONALD L. BEXTEN

---

Appeal No. 2003-0041  
Application No. 09/087,528

---

ON BRIEF

---

Before FLEMING, RUGGIERO and BARRY, ***Administrative Patent Judges***.

FLEMING, ***Administrative Patent Judge***.

***DECISION ON APPEAL***

This is a decision on appeal of the final rejection of claims 1-47, all the claims pending in the instant application.

**Invention**

The invention relates to telephone communication systems and methods. See page 1 of Appellants' specification. The object of Appellants' invention is to provide cellular radiotelephone communication systems and methods that include low cost base stations. See page 6 of Appellants' specification. Figure 4 is a block diagram of

cellular radiotelephone systems and methods according to the present invention. See page 9 of Appellants' specification. Referring to Figure 4, a narrowband uplink 440a, 440b is provided between the base station 420 and the cellular radio exchange 410. A narrowband downlink 450a, 450b is provided from the cellular radio exchange 410 to the base station 420. The base station 420 uplinks downsampled radiotelephone signals to cellular radio exchange 410. See page 9 of Appellants' specification.

Independent claim 1 present in the application is representative of the claimed invention and is reproduced as follows:

1. A communications method between a cellular radiotelephone base station and a cellular radio exchange, comprising the steps of:

downlinking digital coded speech from the cellular radio exchange to the cellular radiotelephone base station; and

uplinking undersampled radiotelephone signals from the cellular radiotelephone base station to the cellular radio exchange.

### **References**

The references relied on by the Examiner are as follows:

Muszynski	5,722,074	Feb. 24, 1998 (applicably filed Sep. 24, 1993)
Ganesan et al. (Ganesan)	5,758,294	May 26, 1998 (filed Jun. 07, 1995)
Bazarjani et al. (Bazarjani)	6,005,506	Dec. 21, 1999 (filed Dec. 09, 1997)

Appeal No. 2003-0041  
Application No. 09/087,528

Keskitalo et al. (Keskitalo)                      6,091,788                      Jul. 18, 2000  
(applicably filed May 23, 1996)

### **Rejections at Issue**

Claims 1-5, 8-10, 12-14, 16, 17, 19-21, 24-28, 31-33, 35-41 and 43-45 stand rejected under 35 U.S.C. § 103 as being unpatentable over Muszynski in view of Bazarjani.<sup>1</sup>

Claims 7, 15, 23, 30 and 47 stand rejected under 35 U.S.C. § 103 as being unpatentable over Muszynski and Bazarjani in view of Ganesan.

Claims 6, 22, 29 and 46 stand rejected under 35 U.S.C. § 103 as being unpatentable over Muszynski and Bazarjani in view of Keskitalo.

Throughout the opinion, we make reference to the briefs<sup>2</sup> and to the answer for the respective positions of Appellants and the Examiner.

### **OPINION**

With full consideration being given to the subject matter on appeal, the Examiner's rejections and the arguments of Appellants and the Examiner, for the reasons stated *infra*, we reverse the Examiner's rejection of claims 1-47 under 35 U.S.C. § 103.

---

<sup>1</sup> Claims 11, 18, 34 and 42 have subsequently been allowed. See page 9 of the Examiner's Answer.

<sup>2</sup> Appellants filed an appeal brief on February 26, 2002. Appellants filed a reply brief on April 29, 2002. The Examiner mailed out an office communication on August 2, 2002 stating that the reply had been entered and considered.

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of establishing a ***prima facie*** case of obviousness. ***In re Oetiker***, 977 F.2d 1443, 1445, 24 USPQ 1443, 1444 (Fed Cir. 1992). See also ***In re Piasecki***, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed Cir. 1984). The Examiner can satisfy this burden by showing that some objective teaching in the prior art or knowledge generally available to one of ordinary skill in the art suggests the claimed subject matter. ***In re Fine***, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Only if this initial burden is met does the burden of coming forward with evidence or argument shift to the Appellants. ***Oetiker***, 977 F.2d at 1445, 24 USPQ at 1444. ***See also Piasecki***, 745 F.2d at 1472, 223 USPQ at 788.

An obviousness analysis commences with a review and consideration of all the pertinent evidence and arguments. "In reviewing the [E]xaminer's decision on appeal, the Board must necessarily weigh all of the evidence and arguments." ***In re Oetiker***, 977 F.2d at 1445, 24 USPQ2d at 1444. [T]he Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion." ***In re Lee***, 277 F.3d 1338, 1344, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002).

Appellants argue that Muszynski is not properly combinable with Bazarjani. See page 6 of the brief. In particular, Appellants point out that the Examiner has conceded

that Muszynski does not disclose that the radio signals uplinked from the base to the exchange are undersampled signals. See page 7 of the brief. Appellants further point out that Muszynski does not teach or suggest any need to provide undersampled signals to the exchange. See pages 7 thru 8 of the brief. Appellants further argue that Bazarjani fails to teach or suggest uplinking undersampled radiotelephone signals from a base station to a cellular radio exchange. See pages 9 thru 10 of the brief.

When determining obviousness, "[t]he factual inquiry whether to combine references must be thorough and searching." *In re Lee*, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002), **citing McGinley v. Franklin Sports, Inc.**, 262 F.3d 1339, 1351-52, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001). "It must be based on objective evidence of record." *id.* "Broad conclusory statements regarding the teaching of multiple references, standing alone, are not 'evidence.'" *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617. "Mere denials and conclusory statements, however, are not sufficient to establish a genuine issue of material fact." *Dembiczak*, 175 F.3d at 1000, 50 USPQ2d at 1617, **citing McElmurry v. Ark. Power & Light Co.**, 995 F.2d 1576, 1578, 27 USPQ2d 1129, 1131 (Fed. Cir. 1993).

The Federal Circuit reviews the Board's ultimate conclusion of obviousness without deference, and the Board's underlying factual determinations for substantial evidence. *In re Huston*, 308 F.3d 1267, 1276, 64 USPQ2d 1801, 1806 (Fed. Cir.

2002) citing *In re Gartside*, 203 F.3d 1305, 1316, 53 USPQ2d 1769, 1776 (Fed. Cir. 2000). "The Board's findings must extend to all material facts and must be documented on the record, lest the 'haze of so- called expertise, acquire insulation from accountability."*Lee*, 277 F.3d at 1345, 61 USPQ2d at 1435.

Upon our review of Muszynski, we find that Muszynski fails to teach or suggest "uplinking undersampled radiotelephone signals from the cellular radiotelephone base station to the cellular radio exchange" as recited in Appellants' claim 1. Furthermore, we note that claims 12, 19, 24, 35 and 43, the other independent claims, recite similar ranges.

Upon our review of Bazarjani, we find that Bazarjani does teach the use of undersampling analog-to-digital converter for sampling a received signal in a CDMA base station or mobile telephone. See column 4, lines 9-60 of Bazarjani. However, we fail to find that Bazarjani teaches or suggest using an uplink undersampled radio signal from a base station to a cellular radio exchange as recited in the independent claims. Bazarjani does teach six reasons for using a sub-sampling receiver in column 4, lines 40-54. However, we fail to find that these reasons would be relevant in providing an uplinking undersampling radiotelephone signal from a cellular radio base station to a cellular radio exchange which do not have the same issues or problems for demodulation within a receiver.

Appeal No. 2003-0041  
Application No. 09/087,528

For the rejection of claims 6, 22, 29 and 46 as being obvious over Muszynski in view of Bazarjani and further in view of Keskitalo and the rejection of claims 7, 15, 23, 30 and 47 as being obvious over Muszynski in view of Bazarjani and further in view of Ganesan, we note that the Examiner has relied on Bazarjani for the above limitations. Furthermore, we find that neither Ganesan or Bazarjani teach or suggest the above limitations. Therefore, we will not sustain the Examiner's rejection of these claims for the same reasons as in the above claims.

Appeal No. 2003-0041  
Application No. 09/087,528

### **CONCLUSION**

In view of the foregoing, we have not sustained the Examiner's rejection of claims 1-47 under 35 U.S.C. § 103.

### **REVERSED**

MICHAEL R. FLEMING	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	BOARD OF PATENT
JOSEPH F. RUGGIERO	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
	)	
	)	
LANCE LEONARD BARRY	)	
Administrative Patent Judge	)	

MRF/vsh



Appeal No. 2003-0041  
Application No. 09/087,528

MYERS, BIGEL, SIBLEY & SAJOVEC  
P.O. BOX 37428  
RALEIGH, NC 27627